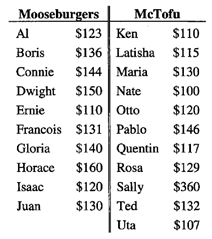
Statistics & Data Analysis Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CW 2.2B Date: \_\_\_\_\_\_\_\_\_\_\_\_ BLOCK: \_\_\_\_\_\_

1. Here are the weekly payrolls for two factitious restaurants.
2. Find the following summary statistics for both restaurants.

|  |  |  |
| --- | --- | --- |
| **Statistic** | **Mooseburgers** | **McTofu** |
| Mean |  |  |
| St. Dev. |  |  |
| Min |  |  |
| Q1 |  |  |
| Med |  |  |
| Q3 |  |  |
| Max |  |  |
| IQR |  |  |

1. Are there any outliers in the distribution of payrolls for Mooseburgers? Use the 1.5 x IQR test. List any outliers.
2. Are there any outliers in the distribution of payrolls for McTofu? Use the 1.5 x IQR test. List any outliers.
3. Which pair of summary statistics (center & spread) would be most appropriate for describing the distribution of payrolls for Mooseburgers? Explain why.
4. Which pair of summary statistics (center & spread) would be most appropriate for describing the distribution of payrolls for McTofu? Explain why.
5. Create parallel boxplots. Label you graph clearly.



1. Write a few sentences comparing the two distributions.
2. Which restaurant pays the higher average salary?
3. Why is the average salary for this restaurant misleading?
4. At which restaurant would you rather work? Give a sound statistical justification.

1. All students in a large physical education class completed a basketball free-throw shooting event and the highest number of shots made was 32. The next day a student who had just transferred into the school completed the event, making 40 shots. Indicate whether adding the new student’s score to the rest of the data made each of these summary statistics increase, decrease, or stay about the same:
2. Mean \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (b) median \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (c) range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. IQR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e) standard deviation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The list SUPER contains the winning margins (winning team pts – losing team pts) in the first 42 Super Bowls. **Complete the following on separate paper and attach to this sheet**.
5. Create a relative frequency histogram
6. Briefly describe the distribution